



January - February 2019

One FDOT! Hurricane Michael **Preparation, Response, and Recovery, Part II**

District Six Creates New Incident Management Videos and Re-Launches SunGuide.info



FLORIDA DEPARTMENT OF TRANSPORTATION'S TRAFFIC ENGINEERING AND OPERATIONS PUBLICATION





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FDOT TRAFFIC ENGINEERING AND OPERATIONS MISSION AND VISION STATEMENTS

MISSION

Provide leadership and serve as a catalyst in becoming the national leader in mobility.

VISION

Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

LOOKING TO BE A CONTRIBUTOR FOR THE NEXT ISSUE OF THE TSM&O DISSEMINATOR?

Email Jennifer Rich (Jennifer.Rich@dot.state.fl.us) with your story subject and title.

We'd love to have your contribution be a part of the next edition.

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One FDOT! Hurricane Michael Preparation, Response, and Recovery, Part II

By Amy M. DiRusso, FDOT District Three; Russell Allen, Atkins; Kevin Mehaffy, Gannett-Fleming

In the last edition of the TSM&O Disseminator, we focused on Hurricane Michael preparation, response, and recovery efforts related to the traffic signal infrastructure. In this article, we tell the rest of the story – covering scheduled activities as well as those that turned out to be hurdles that were overcome amid recovery efforts.

Dump Truck Takes Out Phone Communications!

October 9, 2018, one day before Hurricane Michael made landfall, the story began for the Northwest Florida Regional Transportation Management Center (NFRTMC). On that day, a dump truck traveling near the District Three Headquarters Office was unaware that his bed was raised until it struck the overhead telephone lines (landlines) causing a total loss of phone communications to and from the district offices and the NFRTMC.

Hurricane Michael made landfall the next day. It was soon apparent that this hurricane was going to be like no other in recent history; namely, the speed and strength were far greater than anticipated. Once the gale force winds were upon the NFRTMC, utility power was lost and the building's emergency uninterruptable power supply (UPS) system took over. After a couple of hours, the UPS power system failed, due to the failure of the permanent emergency generator power system for the NFRTMC. This catastrophic failure led to the complete halt of operations within the NFRTMC. The next morning, after emergency power had been restored, the Operations staff began recovery efforts. It was quickly noted that the lack of communications was going to be the largest hurdle for NFRTMC staff to overcome during recovery efforts. Most of the affected areas were without landlines and cellular service, including the Florida Department of Transportation's (FDOT) wireless carrier. As FDOT contractors learned that their selected wireless carrier in the area was still functional, they agreed to donate their personal cell phones for FDOT's use. The intelligent transportation systems (ITS) maintenance contractors also worked diligently to restore functionality to the NFRTMC, and by late afternoon limited services were back online. The NFRTMC then restaffed and resumed operations. The Traffic Operations team understood that additional resources would be required and requested additional staff, bucket trucks, and portable generators. These resources turned out to be essential for obtaining situational awareness in critical recovery areas.

Gas Leak at the NFRTMC

On October 18, 2018, a gas leak was reported at the NFRTMC, found by a strong presence of odor outside the building. All staff was required to evacuate the building immediately until the issue was resolved. During this evacuation, the Pensacola RTMC assumed operations while Chipley staff waited for the "all clear" command to return to their duties. These evacuation and transfer of operations to the Pensacola RTMC all happened a mere 30 minutes prior to the pacing operations covered in the next section. Nevertheless, District Three was ready for the challenge. District Three would like to thank its consultant staff for their diligence in insuring a seamless process.



As it turned out, the scare ended up being a false alarm. Upon investigation, it was determined that the strong gaseous odor was coming from a leaking canister at the Emergency Relief camp on the adjacent parcel of land that was being used to support out of town employees assisting with disaster relief efforts.

One FDOT! Hurricane Michael Preparation, Response, and Recovery, Part II

Pacing Operations

The restoration of services after Hurricane Michael required numerous pacing operations. There were a few critical high-voltage power line spans across U.S. Highway 231 and Interstate 10 that needed to be repaired. These pacing operations were especially challenging given our restricted communications and lack of power to many ITS instruments, and the fact that the Pensacola RTMC had to assume operations for Chipley as noted in the previous section. FDOT and the Florida Highway Patrol (FHP) worked together with power companies to establish a temporary traffic control plan. Pacing operations took place between October 18-22 to restore these services.





With limited eyes and ears on the highways from the RTMC, District Three had to use multiple

countermeasures: portable generators to power critical traffic cameras and dynamic message signs (DMS); Severe Incident Response Vehicles (SIRV) and Road Rangers with truck-mounted signs and FDOT's Land Mobile Radio System, as well as personal cell phones. Utilizing these measures ensured the highest level of safety on our roadways, which soon became evident.

On October 21, 2018, during a pacing operation, the NFRTMC observed a motorist making a U-turn on I-10 just ahead of the

pacing units. NFRTMC Operator, David Roark immediately contacted the FHP Sergeant on duty and directed them toward the motorist's location. The motorist was safely intercepted by FHP just shy of the designated work zone and the personnel on the ground. The NFRTMC operator's diligence and skill set may very well have prevented a tragic event. The extraordinary efforts of each organization, working together, produced the desired outcome – "We all go home safe!"

Getting District Three Headquarters Back Online

Ten days after Hurricane Michael's landfall, the FDOT Chipley offices were still without internet and access to critical FDOT applications. To continue with their "out-of-the-box" thinking, District Three and the Central Office Traffic Engineering and Operations Office (TEOO) came up with



Installing wireless radios on a CCTV pole in Midway to communicate with the ITS Communications Trailer.

an innovative solution to the problem at hand. While the leased network in Chipley and surrounding areas were



still down, power and communications had been restored to the ITS infrastructure along I-10, except for one master communications hub, which was still running on portable generator power. The ITS and Office of Information Technology (OIT) groups worked together to establish an ITS/OIT Emergency Network Connectivity Plan in cooperation with the Department of Management Services. Midway Operations, just west of Tallahassee, was chosen as the host site for FDOT's OIT network services to be extended to Chipley. A mere 1,500 feet from the Midway office on U.S. Highway 90 at I-10 there was an ITS closed-circuit television (CCTV) camera pole with direct line-of-sight, and available fiber was accessible in the area. The plan was to extend the OIT network presence to the outside of the Midway Operations Building, where FDOT parked the TEOO ITS Communications trailer. FDOT, along with their ITS maintenance contractor and their consultant engineering firm, installed and configured a wireless link between the ITS trailer and the CCTV pole using wireless radios. This required splicing a dedicated ITS fiber link from the CCTV pole all the way to the RTMC in Chipley, where a connection was made between the Chipley ITS network and the Chipley OIT network to establish access to FDOT applications and internet services for District Three Headquarters. On October 23, with efforts led by Mark Nallick and Kenny Shiver of FDOT's District Three TSM&O Program, the connection was established and tested. The connection remains in place today as the leased carriers and contractors continue to make field repairs throughout the panhandle.

Because of this successful effort, permanent solutions are planned for emergency redundant connectivity to all Operations facilities throughout the district.

Triple Fatality on SR-77

On October 24, 2018, line crews were restoring power services on State Road 77. A motorist drove through the work zone at a high rate of speed and struck a bucket truck carrying three workers. Unfortunately, all three workers were killed in the crash while trying to help restore power to citizens

in Florida's panhandle. After the crash, the driver fled on foot, which caused further disruption due to an ensuing manhunt by law enforcement. An SIRV on loan from a company in Tampa, arrived at the scene to help law enforcement.

This event was very tragic, and, unfortunately, these incidents happen far too often on our highways. FDOT continues to take measures to make work zones safer for both workers and motorists, with an end goal of "zero fatalities."



Debris Removal Continues The Hurricane Michael aftermath is still evident while traveling along I-10 through Washington, Jackson, and Gadsden Counties. As of February 4, 2019, the NFRTMC has responded to over 400 debris removal events along I-10 and US-231 alone.

For more information please contact Amy DiRusso at (850) 330-1241 or by email at Amy.DiRusso@dot.state.fl.us.

Operations.



FDOT District Six Creates New Incident Management Videos and Re-Launches SunGuide.info

By Javier Rodriguez, District TSM&O Program Engineer, District Six

The FDOT District Six TSM&O Office is happy to announce the release of three new public education videos created for its Incident Management Program.

The videos are approximately 30 seconds each and were developed to raise awareness about the incident management services provided by the district. The videos inform drivers on who the incident responders are, the type of motorist assistance services they provide, and how to safely request assistance. Each video ends with a message about the Move Over Law, which reminds drivers what

to do if they encounter an active incident scene. The main goal is to help drivers identify the multi-agency personnel who provide these critical services and to emphasize the importance of following all traffic laws to promote roadway safety.

The videos were produced in short form to increase viewer consumption and dissemination. The district's social media platforms will launch these videos during the annual Drive Safe/Move Over Law Kick-Off event with the Florida Highway Patrol in January. However, the videos can be viewed any time in the Gallery section of our newly redesigned website, <u>SunGuide.</u> <u>info</u>. The site now makes it easier for the public to access our program news and materials. It was redesigned to improve



viewer browsing and the content was updated to reflect how the District Six TSM&O Program operates today. It has new features such as the "TMC-At-A-Glance" section that highlights our latest statistics on the homepage and uses a new traffic map to provide users with a wider snapshot of roadway conditions in the region.

District Six created these videos and updated the site as part of its mission to provide the public with educational resources to connect them with the TSM&O Program. The district will continue to produce content, so make sure to stay connected and visit the site often. We encourage you to check out the videos and peruse the new site today!

For more information, please contact Javier Rodriguez at (305) 640-7307 or by email Javier.Rodriguez2@dot.state.fl.us.

Inventory Scanning 2.0 - Florida's Turnpike Adds "RFID" Tags for Internal Audits

By Mary Lou Veroline, TSM&O Technical Writer, Florida's Turnpike Enterprise

It is probably safe to say that everyone within this readership is familiar with the statewide system that is used to track property and assets within FDOT. This annual process generates a significant workload for Traffic Operations staff who traditionally have a significant number of assets to locate and scan. To expedite the annual process, increase accuracy, accountability, and timeliness, the

Florida Turnpike Enterprise (FTE) has begun a pilot program utilizing a Radio Frequency Identification (RFID) tag system on a subset of its annual assets.



Radio Frequency Identification (RFID) is a tracking mechanism that embeds an interface (or chip) into its barcode tag that is read by an Android scanner. While that sounds similar to the thermal barcode procedure, the upgraded technology allows tags to be captured from a greater distance and can capture multiple assets simultaneously, without requiring direct line-of-sight. In other words, if

you have 20 items within a room that all have individual thermal tags, each must be scanned on its own. The RFID Pilot technology allows for a collective reading of all 20 items in the room with one click.

The pilot program, launched for the January 2019 inventory scan, has 200 assets RFID-tagged (of the 930-total owned by the Turnpike's Intelligent Transportation Systems (ITS) department). The "passive" tags being utilized here do not require batteries and are smaller and less expensive than the technology's "active" tag counterparts (often used in tolling technology). The FTE began considering the enhancement almost a year ago and selected the DBE firm to be its pilot partner.

Step One of the project required the identification and tagging of the 200-tangible private property (TPP) assets to be used as pilot subjects. These items included laptops, server room equipment, hubs, generators, furniture, and computer/TV monitors. Step Two (to be rolled out in February) incorporates portal scanners, mounted over building doorways, which will record any time an RFID tag passes underneath, thereby assisting in the documentation of items transferred from one location to another.

It should be noted that the intent of this pilot program is not to replace the property tags or procedure currently being used but is to enhance the Turnpike's internal quality control and auditing process throughout the year ensuring a successful, timely, and accurate annual inventory report.

FTE is optimistic that this pilot program will enhance the current internal process, providing alternate tagging means that will not fade with time, or be otherwise unreadable due to damage, dirt, etc. Further, FTE anticipates significant efficiencies with its internal quality audits, as the new process will eliminate the need to disassemble components to locate a tag.

For road-side assets, RFID tags will help to reduce time spent along the roadway

shoulder, and therefore, promote staff safety in an era where distracted driving statistics are on the rise. With nearly 500 miles of roadway to cover, the efficiency of the new process will allow FTE to provide a more complete, accurate, and timely internal audit and ensure timely and efficient compliance with the requirements of annual inventory.

For more information, please contact John Easterling at (954) 934-1620 or by email at John.Easterling@dot.state.fl.us.



RISC Program Highlighted at the District Four Innovation Fair

By Nicole Forest, TSM&O Incident Management Program Manager



On Tuesday, January 8th, 2019, the TSM&O Group's Rapid Incident Scene Clearance (RISC) program took center stage, at District Four's Innovation Fair to showcase exclusive industry tools and strategies used in the expedited scene clearance of incidents in south Florida.

RISC is an innovative, incentive-based heavy-duty wrecker program developed by Florida's Turnpike Enterprise in 2004. The purpose of the RISC program is to expedite the safe clearance of major incidents from the highways using specialized wrecker equipment. Financial incentives are given to qualified wrecker companies who respond within 60 minutes and clear major incidents within 90 minutes.

Team member shares information with visitors.

To boost awareness, District Four TSM&O members

creatively demonstrated a full sequence of actions that ultimately gave guests attending the fair a personal view of how the RISC program is implemented and executed. The first portion of the demonstration allowed guests to operate a live camera using a joystick console to detect interstate incidents, similar to how operators would use it in the District Four Transportation Management Center. At the second station, once guests located a severe incident, they were informed about the criteria involving a potential RISC program activation. As a fun challenge, guests were asked to play the role of an incident responder tasked with deciding if the identified incident would prompt a RISC activation. A decision-making tree was provided to guests as a guide.

The last station showcased a 60-ton RISC wrecker vehicle that is currently used in the recovery and clearance of RISC activated incidents by a District Four towing vendor. Aside from the standard vehicle requirements, this District Four vendor also featured a high-definition drone used to innovatively capture aerial photographs and videos of important scene details related to the RISC recovery process and incident management.

"We highly value the importance of the RISC program. Our initiative is to inform as many incident responders as possible. The more our district personnel are aware of RISC, the quicker we can clear our interstates," said Michael McGee, Traffic Incident Management.



For more information on the RISC program and its benefits, please contact Nicole Forest at 954-847-2631 or by email Nicole.Forest@dot.state.fl.us.

Tampa Transportation Agencies Showcase Public Connected Vehicle Technology

By Sue Chrzan, Tampa Hillsborough Expressway Authority and Jeff Brown, Global-5

The Tampa Hillsborough Expressway Authority (THEA) and the Hillsborough Area Regional Transit Authority (HART) demonstrated connected vehicle technology in HART transit vehicles for the first time November 29, 2018. The live demonstrations were a milestone for the THEA Connected Vehicle Pilot, which has now deployed the potentially lifesaving technology in 1,000 cars, 10 buses, and eight streetcars. The technology is intended to improve safety and mobility in downtown Tampa.

Connected vehicle technology enables vehicles to communicate wirelessly with each other and with traffic signals, crosswalks, and other infrastructure. In a series of controlled demonstrations, onboard equipment successfully alerted drivers to potential collisions between a car and a TECO Line streetcar; between a car and a HART bus; and between a car and a pedestrian.

Officials from the Florida Division of the Federal Highway Administration and the U.S. Department of Transportation (USDOT) participated in the demonstrations. The THEA Connected Vehicle Pilot is sponsored by the USDOT.

"The connected vehicle pilot is great for Tampa because this is new, innovative technology. If you see what is going on around



James Christian, FHWA Florida Division Administrator, shares FHWA's goals for the Connected Vehicle (CV) Pilot with reporters and showcase participants.

the world with autonomy, connectivity and smart cities, it's all coming, and Tampa is going to be among the first. We have a base infrastructure in place that we can build on, and that gives us an advantage," said Bob Frey, Director of Planning and Innovations for THEA.

"Connected vehicles hold the promise of saving lives while making travel more convenient and efficient. This project is truly oneof-a-kind, and we are excited to see the results. We are taking safety to a new level by showcasing this technology," said James Christian, Florida Division Administrator for the Federal Highway Administration.



A vehicle with Connected Vehicle technology installed prepares to turn in front of a TECO streetcar to demonstrate the streetcar conflict technology. Drivers in both the vehicle and the streetcar will hear and see an alert warning them of a possible collision. The \$21 million THEA Connected Vehicle Pilot is part of the USDOT's Connected Vehicle Pilot Deployment Program. The technology being deployed is intended to address traffic concerns, including morning backups, wrong-way drivers, streetcar and bus conflicts, pedestrian safety, and transit prioritization.

For more information on the THEA CV Pilot, visit www.tampacvpilot.com.

continued on the next page

A TECO streetcar operator receives a visual alert that a connected vehicle is crossing the track ahead. This technology can help eliminate crashes between the streetcars and vehicles in downtown Tampa.



Participants in the THEA Connected Vehicle (CV) Pilot showcase watch as a connected vehicle approaches a HART bus with CV technology, triggering an alert in both the vehicle and the bus about a potential collision.



A mid-block, non-signalized crosswalk in downtown Tampa has been equipped with LiDAR and a roadside unit (RSU). The LiDAR detects pedestrians in the crosswalk and the RSU alerts the drivers in approaching connected vehicles of the pedestrians' presence.



Announcement

On February 7th, Mr. David Roark the Northwest Florida Regional Transportation Management Center Lead Supervisor was presented an award for assistance during a pacing operation that may have prevented utility workers from being struck on I-10, during Hurricane Michael recovery efforts. The Highway Patrol's Major Howze and Captain Harrison presented David with a framed award, a patch



worn by Troopers, a HWY Patrol Cap, and a Challenge Coin. It is a rare privilege to be recognized in this manner and Mr. Roark was very honored. Also in attendance were, District Secretary Phillip Gainer, **Emergency Coordination Officer Irene** Cabral, Director of Transportation **Operations Jason Peters, TSM&O Program** Engineer Amy DiRusso, PIO Director Ian Satter, District Maintenance Engineer, Tim Hendrix, Arterial Management Specialist Kenny Shiver, ITS Operations Manager William Reynolds, Project Manager Terry Hensley and several of Mr. Roark's coworkers.

Break Time



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Taking FL511 to Transportation Leaders and the Motoring Public

By Ellen Underwood, Sonshine Communications

The Florida 511 (FL511) Advanced Traveler Information System (ATIS) is a service of the Florida Department of Transportation (FDOT) to increase safety and reduce driving time on Florida roads. FL511 currently provides information on congestion events, crashes, construction, maintenance activities, and travel times on interstates, toll facilities, and several other major Florida routes. FDOT wants to spread the word about the availability of the system and encourage motorists to use FL511. The FL511 marketing team's goals are to increase FL511 usage by effectively marketing to Florida transportation users. The objectives include marketing FL511 uniformly to all users, conducting events, and organizing presentations in all regions of Florida. FDOT encourages the public to utilize existing and soon-to-be-released FL511 tools to obtain current traffic and travel conditions.



Dignitaries speak about the importance of Florida's Move Over law, with first responders in the background.

One of the marketing strategies of FL511 is to participate in conferences and events with a display, materials, and team members to share the message of FL511 with attendees. This past January, the team participated in two very different events: one to reach transportation leaders and a second to reach the motoring public.

On January 17th and 18th, the FL511 team participated in the Florida Transportation Builders Association (FTBA) Construction Conference in Orlando. The purpose of the conference is to foster public understanding and support for an efficient, effective,



and totally integrated transport for an efficient, effective, and totally integrated transportation system through the promotion of the industry. A broad array of transportation leaders throughout the state attended.

The FL511 marketing team participated in an exhibit featuring educational items and knowledgeable team members. It is estimated that more than 500 people attended the conference, with 300 of these visiting the exhibit.

"We reached transportation leaders throughout the state with the FL511 message," Eugene Jules of FDOT said. "We conducted very engaging conversations with many of the guests. Some were fully aware of the system, while it was new to others. Many visitors were happy to hear about our social media expansion to Facebook and Instagram and said they plan to follow and like us online."

One of the most fun parts of the exhibit was the FL511 cut-out

car. Attendees clearly enjoyed sitting in the driver seat of the cardboard car for a photo, some of which are now posted on the FL511 social media pages. The FL511 exhibit was very well received; it helped inform the public about using FL511 and showcase the brand to an important organization in Florida.

The second event was hosted by the Florida Turnpike Enterprise in partnership with Florida Highway Patrol Troop K to recognize Florida's Move Over law. Florida law requires motorists to move over a lane – when they can safely do so – for stopped law enforcement, emergency, sanitation, utility service vehicles, and tow trucks or wreckers. This past January was Move Over Awareness Month in Florida. This event was held at the Turnpike's West Palm Beach Service Plaza on January 29th from 10 a.m. to 2 p.m. It featured a press conference, presentations, first responder vehicles, and exhibits.

More than 200 people stopped by the FL511 exhibit. The FL511 marketing team directly met with motorists to spread the word about FL511. Guests who visited the booth were pleased with what they saw and heard, and many expressed a newfound interest in FL511. In addition, the



Special guests stop by the FL511 exhibit.

news media representatives who stopped by were engaged and excited to learn more about FL511 and FDOT's team effort to showcase the Move Over message.

The FL511 team utilized a relatively new outreach tool at this event. The team video-streamed the event on Facebook Live. The FL511



Facebook page (@FL511), as well as one on Instagram (@Florida_511), were both launched in late 2018. Each feature events, activities, pictures, and some travel information. Videos are also on the Facebook page. The existing Twitter feeds will continue to be the primary source of 24/7 traffic updates. (Twitter has 13 handles, which all include @fl511.)

In conclusion, these events, and many others conducted each year help raise awareness of FL511 to transportation and state leaders, the media, and the end user – the general public. The FL511 marketing team participates in one or two events like this per month such as fairs, festivals, community events, and other organized activities to bring the message of FL511 to Florida motorists – to encourage use and improve understanding of the Florida 511 Advanced Traveler Information System.

If an FDOT employee or affiliate knows of an event which seems like a good fit for the FL511 exhibit and marketing team, please contact Eugene Jules at (850) 410-5642 or Eugene.Jules@dot.state.fl.us.

Intelligent Transportation Society of Florida (ITS Florida) President's Message

Greetings,

With the continued advancements of intelligent transportation systems (ITS) technologies, 2019 promises to be a very exciting, challenging, and rewarding year for Intelligent Transportation Society of Florida (ITS Florida). ITS Florida is composed of dedicated public, private, and academic transportation professionals with a mission.

The mission of the ITS Florida is to promote safe and efficient transportation by delivering nation-leading innovation, information, advocacy, and interest in ITS solutions for our members, policymakers, industry leaders, and Florida's diverse population, visitors, and commercial enterprises.

Horrific Problem: For the past 10 years, based upon the United States Department of Transportation (USDOT), the National Highway Traffic Safety Administration reports¹ the fatality rate on U.S. roadways remains above 33,000 people killed per year. Even though the profession has put forth a commendable initiative to move toward zero deaths on U.S. roadways, recent years continue to show increased fatalities. In 2017 alone, there were 37,133 people killed in motor vehicle crashes.

Resolution: One approach to combat this horrific problem is the use of ITS. ITS embraces new transportation concepts, which incorporate a vast array of advancing technologies that when combined, act as an intelligent system to sense, monitor, evaluate, and manage mobility needs. This technological revolution is developing smart community transportation systems that enhance efficiency and most importantly, combat the serious growing safety problem.

ITS America, in conjunction with the USDOT, has led the way by advancing two key focus areas, namely 1) Automated Vehicle Technology and 2) Connected Vehicle Implementation. These two areas will have a profound impact on addressing the fatality and injury problems along U.S. roadways.

Benefits: ITS America has done a superb job in summarizing the benefits of these technological advancements, with some restated here.

- "Automated vehicle technology is the best tool in our toolbox to drastically reduce and potentially eliminate the 90 percent of crashes caused by human error."²
- "Automated vehicles are much like new drivers-they have a great capacity to learn, but they need experience. Just as a human driver improves with time, so too will automated vehicles. Unlike humans, however, they do not get distracted, they won't fall asleep, and they will not drive under the influence."³
- "Just as transportation infrastructure was critical to the development of our economy in the 20th century, maintenance of existing infrastructure and deployment of smart mobility and infrastructure will be critical for our global competitiveness in this century. Advances in robotics, artificial intelligence, and wireless communications have inspired a race to make the next generation of transportation and infrastructure a reality. We are entering a technology revolution that will define the way people, goods, services, and information move in the 21st century. Part of that revolution includes new technologies that allow freedom of movement for those who have limited mobility access, such as people with disabilities and older adults. And most importantly, these technology advancements will finally help us begin to reduce the epidemic of fatalities on our roadways."⁴

Challenges: For several years, the automobile industry has been building and introducing new automated vehicle technology. This technology is proving to provide tremendous improvements that will have a significant positive safety impact by reducing crashes, fatalities, and injuries along our roadways. A challenge transportation professionals face is to keep pace with automotive manufacturers, particularly when it comes to connected vehicle advancements as it relates to existing infrastructure. The transportation backbone infrastructure must be upgraded and made ready to support these connected vehicle technologies if significant progress is to be realized. This could take many years to accomplish, so the challenge is how to handle the transition interim period.

ITS is truly a technological transportation revolution taking place at breakneck speeds. It can be very rewarding, yet has other challenges. ITS requires all of us (engineers, specialists, technicians, communications, etc.) to learn and incorporate new skill sets. We need to provide educational training to keep pace with these new technologies. This can often be uncomfortable and challenging for some.

ITS is requiring new disciplines being brought into the transportation profession. Colleges, universities, and trade schools are modifying the core curriculum to embrace ITS within the transportation and technical courses, incorporating new communication spectrums, computer software, cybersecurity, etc.



ITS Florida continues to foster additional new training in these new disciplines for its members by sponsoring training at conferences and other events. Also, we are reaching out to universities, colleges, and trade organizations to embrace these new training needs so that students are being prepared to enter the workforce already familiar with this new area of advanced transportation technologies.

NOTE: For addressing training needs; please mark your calendar for the upcoming event called: 13 Transportation Showcase June 23, 2019 - June 26, 2019, Orlando, FL Joint meeting of ITS Florida, FSITE, and IMSA

Needs: ITS Florida really needs and welcomes your input. If you or your agency, company, or institution are not currently an active member of ITS Florida, we urge you to please join or rejoin us. Visit <u>www.itsflorida.org</u>. This is a challenging, exciting, and rewarding opportunity, and you can help make a difference.

Jim Clark, *P.E.* 2019 ITS Florida President

Reference Notes:

- 1. U.S. Department of Transportation, National Highway Traffic Safety Administration Traffic Safety Facts, DOT HS 812 603, October 2018 Issue.
- 2. Automated Vehicles Will Make Roads Safer: Shailen Bhatt Op-Ed in The Hill; April 3, 2018.
- 3. Ibid.

4. ITS America Outlines Transportation Infrastructure Priorities for 116th Congress; ITS America Press Release, January 29, 2019.

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